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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
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CHICAGO, II	L 60601-6780		2115		
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
,	10/040,222	LEVIDOW ET AL.			
Office Action Summary	Examiner	Art Unit			
	Vajirachai Komol	2115			
The MAILING DATE of this communication ap	ppears on the cover sheet with the	correspondence address			
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM					
THE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a regular of the provided for reply is specified above, the maximum statutory period for reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a reply be ply within the statutory minimum of thirty (30) did will apply and will expire SIX (6) MONTHS frote, cause the application to become ABANDON	timely filed ays will be considered timely. im the mailing date of this communication. IED (35 U.S.C.§ 133).			
Status					
1) Responsive to communication(s) filed on 29 October 2001.					
2a)⊠ This action is FINAL . 2b)□ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4)⊠ Claim(s) <u>1-33</u> is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>1-33</u> is/are rejected.					
7) Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or election requirement.					
Application Papers					
9)☐ The specification is objected to by the Examiner.					
10)⊠ The drawing(s) filed on <u>29 October 2001</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).					
a) ☐ All b) ☐ Some * c) ☐ None of:					
 Certified copies of the priority documents have been received. 					
2. Certified copies of the priority documents have been received in Application No					
3. Copies of the certified copies of the priority documents have been received in this National Stage					
application from the International Bureau (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a lis	st of the certified copies not recei	vea.			
Attachment(s)	•				
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail	Date I Patent Application (PTO-152)			
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/06 Paper No(s)/Mail Date	6) Other:				
U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04) Office	Action Summary	Part of Paper No./Mail Date 20050505			

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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1 3, 5 6, 8 9, 13 and 19 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey Brydon [hereinafter Brydon, "powerfail recovery", Dec. 28, 1995] in view of Nathan et al [hereinafter Nathan, U.S. Pat. 6,647,492] in further view of Skibinski et al [hereinafter Skiniski, U.S. Pat. 6,654,798].

Regarding to claim 1, Brydon teaches a computer-implemented method for obtaining information about a shutdown of a computer having an operating system managing at least one user-mode process, the shutdown of the computer including a shutdown of the operating system, the method comprising:

- prompting a user reason for the shutdown of the computer [page 5, "What is the reason for this shutdown"];
- receiving a user reason [page 5, "then goto read_reason"];
- storing the reason in a memory [page 1, "**** Start WHYBOOT.COM:", lines 13
 16]

However, Bryson does not explicitly teaches:

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• presenting a user with a plurality of reasons for the shutdown of the computer;

- receiving a user selection of at least one of the plurality of reasons;
- capturing the state of the at least one user-mode process for subsequent analysis.

Nathan teaches:

• capturing the state of the at least one user-mode process [col. 7, lines 17 - 18].

Skibinski teaches:

• presenting a user with a plurality of reasons for the log-off of a system [16, fig. 3];

receiving a user selection of at least one of the plurality of reasons [col. 3, lines 26]

– 29]; and

• capturing the reasons for subsequent analysis [col. 7, line 64 – col. 8, line 4].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan and Skibinski because they all directed to the teaching of shutting down/logging off the system. Nathan and Skibinski teach the details of capturing, presenting, receiving and analyzing the captured information, which are missing in Brydon's system.

Regarding to claim 19, Brydon teaches a computer-implemented method for obtaining information about a shutdown of a computer, wherein the computer has a memory and an operating system managing a plurality of user-mode processes, the shutdown of he computer including a shutdown of the operating system, the method comprising:

receiving from a user a reason for shutting down the computer [page 5, "What is
the reason for this shutdown", "then goto read_reason"]; and

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storing the received reason in the memory [page 1, "**** Start
 WHYBOOT.COM:", lines 13 – 16].

However, Brydon does not explicitly teaches:

• the reason is one of a plurality of predefined shutdown reasons;

• taking a snapshot of a state of each of the plurality of user-mode processes that are running on the computer at the time of the shutdown; and

• storing the snapshot in the memory.

Nathan teaches:

taking a snapshot of a state of each of the plurality of user-mode processes that
 are running on the computer at the time of the log-off [col. 7, lines 17 – 18].

Skibinski teaches:

• the reason is one of a plurality of predefined log-off reasons [52, fig. 2]; and

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan and Skibinski because they all directed to the teachings of shutting down/ logging-off the system. Nathan and Skibinski teach

Regarding to claims 2 and 20, Nathan further teaches a computer-readable medium having stored thereon computer-executable instructions for performing the method of claims 1 and 19, respectfully [108, fig. 1].

the details of the snapshot and the predefined reasons which are missing in Brydon's system.

Regarding to claim 3, Brydon, Nathan and Skibinski teach all the limitations of claim 1.

Skibinski further teaches retrieving the plurality of reasons from a system database [col. 3, lines 23 – 24]; and, presenting the retrieved reasons to the user [16, fig. 3].

Regarding to claim 5, Brydon, Nathan and Skibinski teach all the limitations of claim 1. Skibinski further teaches at least one of the plurality of reasons is custom-defined [col. 2, lines 19 – 20].

Regarding to claim 6, Brydon, Nathan and Skibinski teach all the limitations of claim 1. However, Brydon, Nathan and Skibinski do not explicitly teaches receiving from the user a typed-in description of at least one reason for the shutdown; and, storing the typed-in description in the memory. Specifically, Nathan teaches storing the shutdown reason in the memory [col. 7, lines 20 – 22].

As such, a routineer in the art would recognize that such feature is inherent in Brydon, Nathan and Skibinski's system.

Regarding to claim 8, Brydon, Nathan and Skibinski teach all the limitations of claim 1. Skibinski further teaches that the user initiates the log-off of the system [col. 3, lines 22 – 23] and selects one or more reasons for logging off the system at a remote system [col. 3, lines 26 – 27] that is in communication with the computer being log-off [col. 3, lines 19 – 21].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Skibinski to allow the system to perform the same tasks in a shutdown mode.

Regarding to claim 9, Brydon, Nathan and Skibinski teach all the limitations of claim 1. Brydon further teaches prompting the user to enter the shutdown reason [page 5, "What is the reason for this shutdown"] in response to the user initiating a shutdown of the computer [page 1, "**** Start WHYBOOT.COM", lines 13 – 14].

Regarding to claim 13, Brydon, Nathan and Skibinski teach all the limitations of claim 1. Skibinski further teaches receiving a user indication of a remote machine that is being log-off [col. 3, lines 26 – 29].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Skibinski to allow the system to perform the same tasks in a shutdown mode.

Regarding to claim 21, Brydon, Nathan and Skibinski teach all the limitation of claim 19. Brydon further teaches in response to the user initiating the shutdown of the computer [page 1, "**** Start WHYBOOT.COM", lines 13 – 14], prompting the user to enter the shutdown reason [page 5, "What is the reason for this shutdown"].

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3. Claims 15 – 18 and 23 - 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey Brydon [hereinafter Brydon, "powerfail recovery", Dec. 28, 1995] in view of Nathan et al [hereinafter Nathan, U.S. Pat. 6,647,492] in further view of Connelly et al [hereinafter Connelly, U.S. Pat. 6,594,786].

Regarding to claim 15, Bryson teaches a computer-implemented method for obtaining information about a shutdown of a computer, the method comprising:

- receiving a user entry of a command to shut down the computer along with at least one shutdown reason [page 1, "**** Start WHYBOOT.COM:", lines 13 14, page 5, "What is the reason for this shutdown", "then goto read_reason"]; and
- storing the entered reason in a memory [page 1, "**** Start WHYBOOT.COM:",
 lines 13 16].

However, Brydon does not explicitly teaches:

- searching a list of predefined shutdown reason codes to determine whether the entered shutdown reason code is recognized;
- if the entered reason code is recognized, storing the entered reason code in a memory;
- if the entered reason code indicates that the shutdown is unplanned, taking a snapshot of a current state of each of a plurality of user-mode processes, the snapshot comprising at least one parameter of each use-mode process; and
- storing the snapshot in a non-volatile memory.

Nathan teaches:

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taking a snapshot of a current state of each of plurality of user-mode processes,
 the snapshot comprising at least one parameter of each user-mode process [col. 7,
 lines 16 – 17; and

• storing the snapshot in a non-volatile memory [col. 7, lines 17 - 20].

Specifically, Nathan takes the snapshot prior to shutting down the system regardless the shutdown is planned or unplanned.

Connelly teaches:

• searching a list of predefined shutdown reason codes to determine whether the entered shutdown reason code is recognized [Table 1, Cause #].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan and Skibinski because they all directed to the teaching of shutting down/logging-off the system. Nathan and Skibinski teach the snapshot and the predefined shutdown reason code which are missing in Brydon's teachings.

Also, at the time of the invention, a routineer in the art would recognize that Nathan's system can easily be modify to only take the snapshot, taught by Nathan when the shutdown is unplanned, taught by Connelly.

Regarding to claim 23, Brydon, Nathan and Connelly teach all the limitations of claim 15.

Connelly further teaches:

• in response to a user initiating the shutdown of the computer [col. 7, lines 36 – 37];

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 retrieving a list of preconfigured shutdown reasons from a database on the computer [Table 1];

- presenting the list of preconfigured shutdown reasons to the user [Table 1];
- prompting the user to select one or more of the preconfigured reasons [col. 7,
 lines 38 39, Table 1];
- storing the selected preconfigured reason or reasons in a log file on the computer [col. 7, line 39];

As such, claim 23 is reject with the same reference citations and rationale as claim 15.

Regarding to claims 16 and 24, Nathan further teaches a computer-readable medium having stored thereon computer-executable instructions for performing the method of claims 15 and 23, respectfully [108, fig. 1].

Regarding to claim 17, Brydon, Nathan and Connelly teach all the limitations of claim 15. Connelly further teaches that the receiving step further comprises receiving the name of the computer that is being shutdown [fig. 8F, ENTITY].

Regarding to claim 18, Brydon, Nathan and Connelly teach all the limitations of claim 15. However, Brydon, Nathan and Connelly do not explicitly teach the storing step further comprises storing the snapshot on a memory of the named computer. Specifically, Nathan teaches storing the snapshot on a memory [col. 7, lines 17 – 20].

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Connelly teaches storing the name of the system that is being shutdown [fig. 8F, ENTITY].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan and Connelly because they both directed to the teaching of shutting down a system and Connelly teaches the details of the storing of the computer name which is not explicitly teaches in Brydon and Nathan's system

Regarding to claim 25, Brydon, Nathan and Connelly teach all the limitations of claim 23. Connelly further teaches prompting the user to select whether the shutdown is planned or unplanned [col. 7, lines 38 – 39, Table 1]; and, storing the planned or unplanned selection in the log file [col. 7, line 39].

Regarding to claim 26, Brydon, Nathan and Connelly teach all the limitations of claim 15. Nathan further teaches

- at least one pagefile parameter [col. 7, lines 19 20]; and
- at least one system parameter [col. 7, lines 17 18].

Regarding to claim 27, Brydon, Nathan and Connelly teach all the limitations of claim 26. However, Brydon, Nathan and Connelly do not explicitly teach that at least one pagefile parameter comprises a peak utilization amount of a pagefile.

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As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Brydon, Nathan and Connelly to include peak utilization amount in the pagefile.

Regarding to claim 28, Brydon, Nathan and Connelly teach all the limitations of claim 26. However, Brydon, Nathan and Connelly do not explicitly teach that at least one system parameter comprises an amount of an operating system kernel in a volatile memory at the time of shutdown.

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Brydon, Nathan and Connelly to include amount of an operating system kernel in a volatile memory at the time of shutdown.

Regarding to claim 29, Brydon, Nathan and Connelly teach all the limitations of claim 15. However, Brydon, Nathan nor Connelly do not explicitly teach that the snapshot comprises, for each user-mode process, an amount of memory utilized by the process.

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Brydon, Nathan and Connelly to include the amount of memory utilized by the process in the snapshot.

Regarding to claim 30, Brydon, Nathan and Connelly teach all the limitations of claim 15. However, Brydon, Nathan and Connelly do not explicitly teach that the snapshot comprises, for each user-mode process, a relative priority of the process.

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Brydon, Nathan and Connelly to include a relative priority of the process for each user-mode in the snapshot.

Regarding to claim 31, Brydon, Nathan and Connelly teach all the limitations of claim 15. However, Brydon, Nathan and Connelly do not explicitly teach that the snapshot comprises, for each user-mode process, a number of pointers to blocks of memory utilized by the process.

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Brydon, Nathan and Connelly to include a number of pointers to blocks of memory utilized by the process for each user-mode process in the snapshot.

Regarding to claim 32, Brydon, Nathan and Connelly teach all the limitations of claim 15. However, Brydon, Nathan and Connelly do not explicitly teach that the snapshot comprises for each user-mode process, a number of threads of execution associated with the process.

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Brydon, Nathan and Connelly to include a number of threads of execution with the process for each user-mode in the snapshot.

4. Claims 4, 7, 10 – 12, 14 and 22 are rejected under 35 U.S.C. 103[a] as being unpatentable over Harvey Brydon [hereinafter Brydon, "powerfail recovery", Dec. 28, 1995] in view of Nathan et al [hereinafter Nathan, U.S. Pat. 6,647,492] and in view of Skibinski et al [hereinafter

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Skibinski, U.S. Pat. 6,654,798] and in further view of Connelly et al [hereinafter Connelly, U.S. Pat. 6,594,786].

Regarding to claim 4, Brydon, Nathan and Skibinski teach all the limitations of claim 3. However, Brydon, Nathan and Skibinski do not explicitly teach that the reasons are retrieved from entries located in a system database, wherein each reason entry indicates whether the reason is to be displayed during a shutdown of the computer, or during a restart of the computer following a shutdown.

Connelly teaches that the reasons are retrieved from entries located in a system database [col. 7, lines 41 - 42, Table 1], wherein each reason entry indicates whether the reason is to be displayed during a shutdown¹ of the computer [col. 7, lines 36 - 42], or during a restart² of the computer following a shutdown [col. 7, lines 44 - 52] in order to improve system recovery times by quickly identifying unavailable systems [col. 1, line 67 - col. 2, line 1].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches the details of the planned and unplanned shutdown which is not explicit teaches in Brydon, Nathan and Skibinski's system.

¹ Each reason in Table 1 indicates whether the shutdown reason is planned or unplanned and as a result, planned shutdown reasons will be display during a shutdown of the computer.

² Each reason in Table 1 indicates whether the shutdown reason is planned or unplanned and as a result, unplanned/crash reasons will be execute during a restart of the computer following a shutdown.

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Regarding to claim 7, Brydon, Nathan and Skibinski teach all the limitations of claim 1. However, Brydon, Nathan and Skibinski do not explicitly teach receiving from the user a selection of whether the shutdown was planned or unplanned; and, storing the planned or unplanned selection in the memory.

Specifically, Nathan teaches storing shutdown reason in a memory [col. 7, lines 20 – 22] regardless the reason is planned or unplanned.

Connelly teaches receiving from the user a selection of whether the shutdown was planned or unplanned [col. 15, lines 64 – 65 along with Table 1]. Connelly further teaches storing the planned or unplanned selection in the memory [col. 7, lines 36 – 41] in order to improve system recovery times by quickly identifying unavailable systems [col. 1, line 67 – col. 2, line 1].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches details of the planned and unplanned shutdown which is not explicit teaches in Brydon, Nathan and Skibinski's system.

Regarding to claim 10, Brydon, Nathan and Skibinski teach all the limitations of claim 1. However, Brydon, Nathan and Skibinski do not explicitly teach prompting the user to enter the shutdown reason in response to the user restarting the computer subsequent to the computer being shutdown.

Connelly teaches prompting the user to enter the shutdown reason in response to the user restarting the computer subsequent to the computer being shutdown [col. 7, lines 48 - 49, lines 51 - 52].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches the details of the planned and unplanned shutdown which is not explicit teaches in Brydon, Nathan and Skibinski's system.

Regarding to claim 11, Brydon, Nathan and Skibinski teach all the limitations of claim 1. However, Brydon, Nathan and Skibinski do not explicitly teach that the reason is received via a command line interface.

Connelly teaches that the reason is received via a command line interface [col. 7, line 37].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches the details of the command line interface which is not explicit teaches in Brydon, Nathan and Skibinski's system.

Regarding to claim 12, Brydon, Nathan and Skibinski teach all the limitations of claim 11. However, Brydon, Nathan and Skibinski do not explicitly teach that the reason is received in the form of a reason code.

Connelly teaches reason code [col. 7, Table 1, Cause #].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches the details of the reason code which is not explicit teaches in Brydon, Nathan and Skibinski's system.

Regarding to claim 14, Brydon, Nathan and Skibinski teach all the limitations of claim 1. However, Brydon, Nathan and Skibinski do not explicitly teach that determining, based on the user specified selection, whether the shutdown is planned or unplanned; and if the shutdown is determined to be unplanned, performing the capturing step. Specifically, Nathan teaches the capturing step regardless the shutdown is planned or unplanned [col. 7, 17 – 18].

Connelly teaches a method to determining, based on the user specified selection, whether the shutdown is planned or unplanned³ [col. 7, lines 37 – 41 along with Table 1].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches the details of the planned or unplanned which is not explicit teaches in Brydon, Nathan and Skibinski's system.

³ Planned downtime results from scheduled activities such as backup, maintenance, and upgrades. Unplanned downtime is the result of an unscheduled outage such as system crash, hardware or software failure, or environmental incident such as loss of power or natural disaster.

Regarding to claim 22, Brydon, Nathan and Skibinski teach all the limitations of claim 19. However, Brydon, Nathan and Skibinski do not explicitly teach that in response to the user rebooting the computer after an unexpected shutdown, prompting user to enter the reason for the unexpected shutdown.

Connelly teaches that in response to the user rebooting [col. 7, line 44] the computer after an unexpected shutdown, prompting user to enter the reason for the unexpected shutdown [col. 7, line 51 - 52].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Skibinski and Connelly because they are directed to the teachings of shutting down/logging off the system and Connelly teaches the details of the planned or unplanned which is not explicit teaches in Brydon, Nathan and Skibinski's system.

5. Claim 33 is rejected under 35 U.S.C. 103[a] as being unpatentable over Harvey Brydon [hereinafter Brydon, "powerfail recovery", Dec. 28, 1995] in view of Nathan et al [hereinafter Nathan, U.S. Pat. 6,647,492] and in view of Connelly et al [hereinafter Connelly, U.S. Pat. 6,594,786] and in further view of Fittges et al [herein after Fittges, U.S. Pat. 6,754, 648].

Regarding to claim 33, Brydon, Nathan and Connelly teach all the limitations of claim 15. However, Brydon, Nathan and Connelly do not explicitly teach that the snapshot comprises extensible markup language [XML].

Fittges teaches storing data in extensible markup language [XML] [col. 4, lines 53 - 59].

As such, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Brydon, Nathan, Connelly and Fittges because they are directed to the teaching of storing data and Fittges teaches the details of storing the data in XML format.

Response to Amendment

6. Applicant's arguments with respect to claims 1-33 have been considered but are most in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vajirachai Komol [Ben] whose telephone number is (571) 272-5858. The examiner can normally be reached on 6:00 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VK

THOMAS LEE SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100